

Investigating Environmental Factors in Aerosols

Focused on posture & intensity of HHCWs

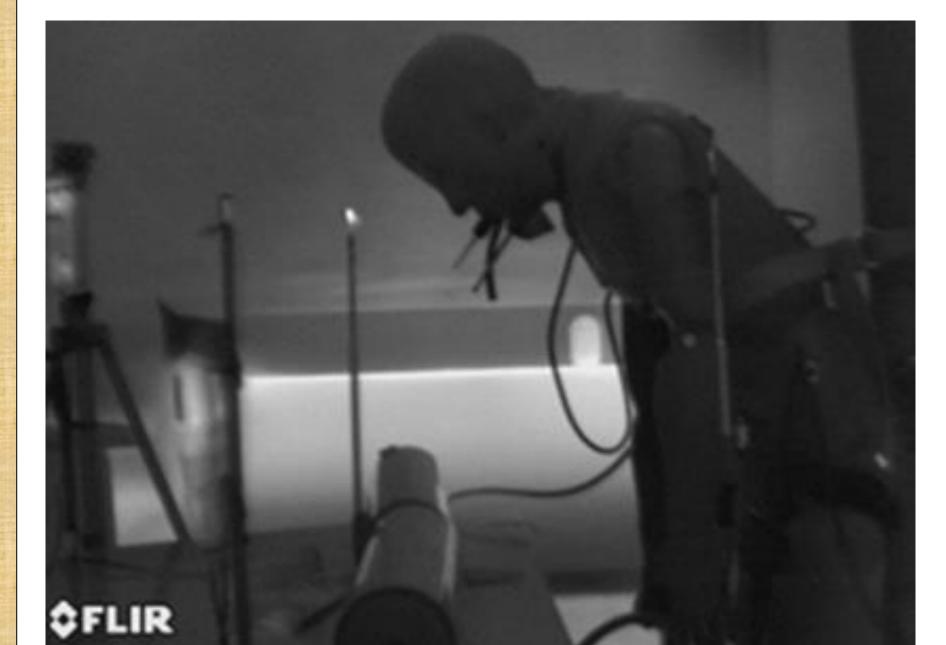
PI: Bellacov, Ryan Mentor: Dr. Kermit Davis



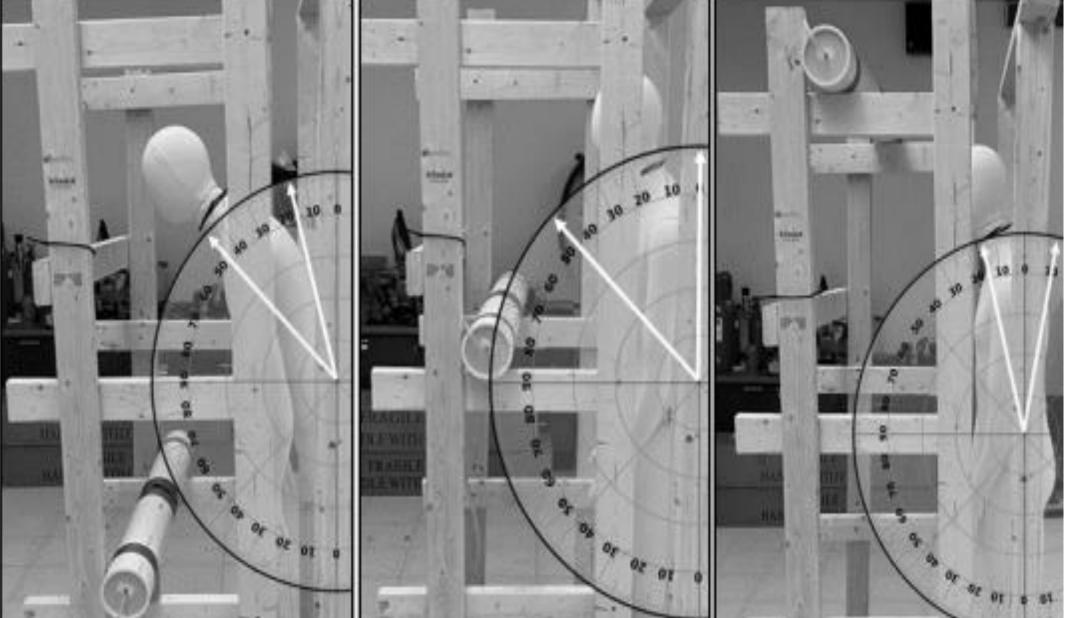
Building off UC prior research

Whitehead 2020

Eturki (2019)



Wind affects exposure



Distance to source of pollutant

Vishal (2022) OFFICE/ BEDROOM \implies *VACUUM* CORRIDOR/ ENTRANCE

HHCWs exposed to bioaerosols

7 postures

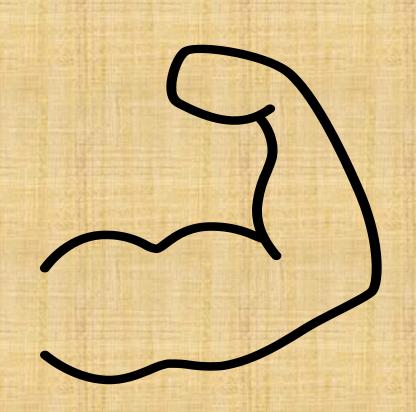
Approach

(30 subjects)

Dependent variables





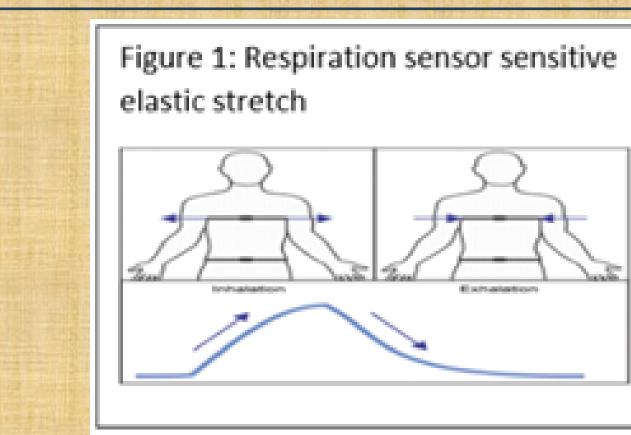


Intensity of work

Independent variables



Lung volume



Rib cage expansion

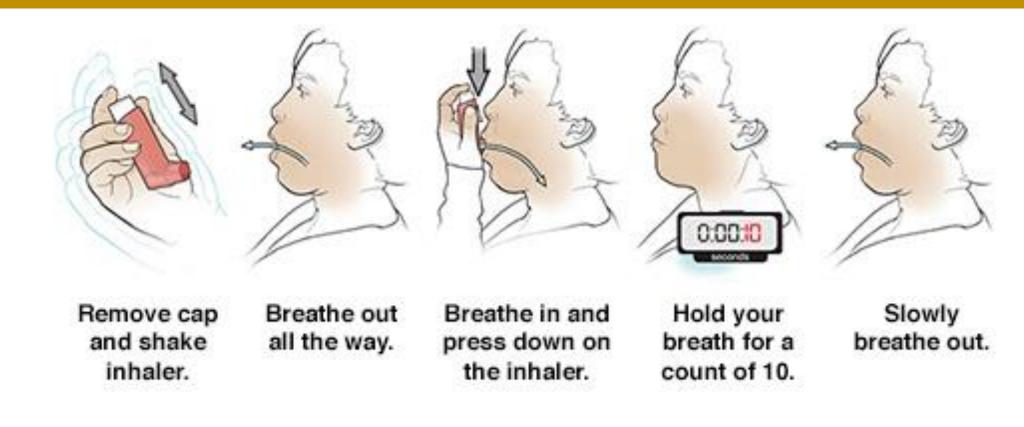


Varies physiological parameters

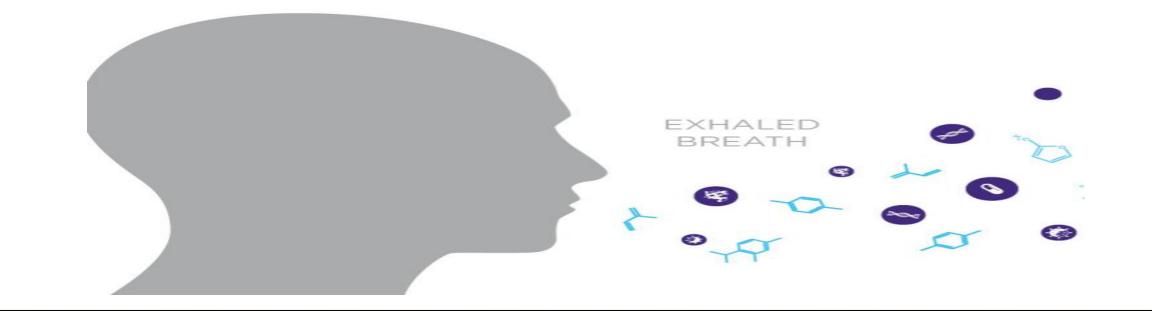
Expected Results: Intensity of work will have the most significance

Research to Practice (Expanding into Future)

Verify and estimate the dose

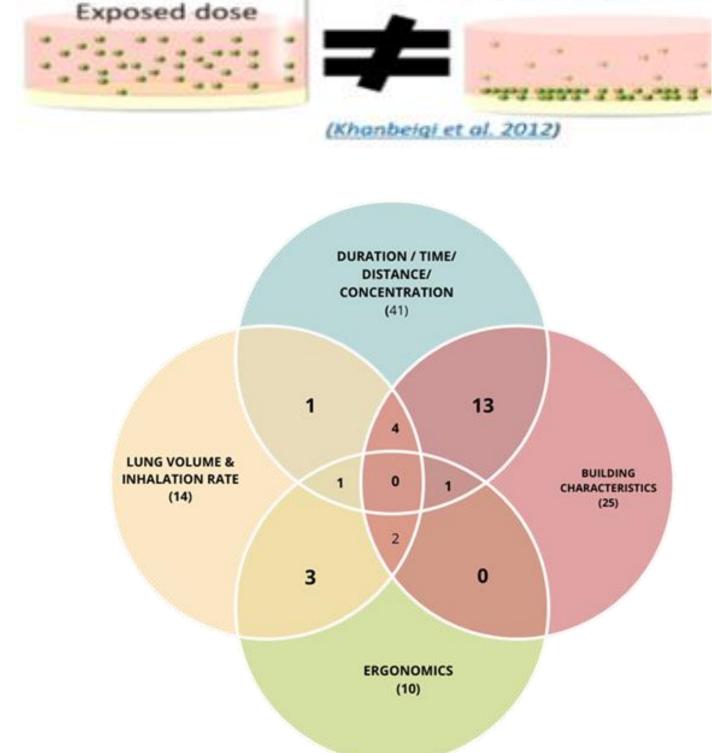


Exposure to the HHCW with inhaler?



Significance:

What if we are underestimating dose?



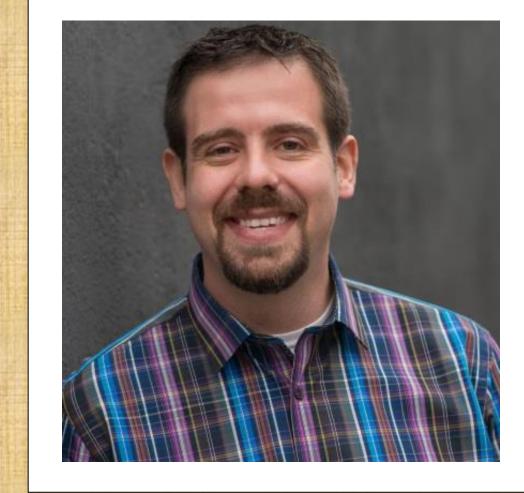
Lit Review: -50,0000 publications

Figure 2. Venn diagram of Search Results on Exposure Factors

Acknowledgements

Our team would like to thank the National Institute of Occupational Safety and Health (#T420H008432) for funding this study. Finally, thanks to the faculty members which were involved in the creation of this study.

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References

